

HALF SIZE HCMOS/TTL HEAVY LOAD OSCILLATOR F3020

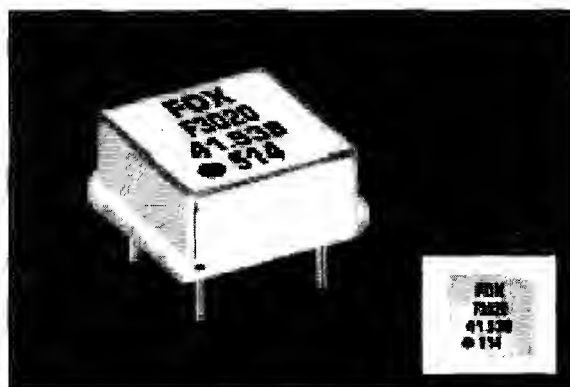
The F3020 Clock Oscillator is our half size design capable of driving heavy HCMOS loads. This oscillator has a tri-state enable/disable on pin 1 to facilitate testing with ATE. The package is all metal with pin 4 as case ground which provides shielding to help minimize EMI radiation.

FEATURES

- 8 Pin Dip
- 50pF HCMOS Load to 80 MHz
- 10TTL Fanout
- Tri-state Enable/Disable
- Drives 80486 & 68030
- -40°C to +85°C Available

• PART NUMBER SELECTION

| Frequency Stability | Part Number |
|----------------------|-------------|
| ±100PPM | F3020 |
| ±50PPM (up to 90MHz) | F3025 |
| ±25PPM (up to 50MHz) | F3026 |



Actual Size



OSCILLATORS

• ELECTRICAL CHARACTERISTICS (Ta = 25°C, VDD = 5.0V, CL = 50pF)

| PARAMETERS | FREQUENCY RANGE | CONDITIONS | MIN | MAX | UNITS |
|----------------------|-------------------|-----------------|-------|---------|-------|
| Frequency Range (Fo) | | | 1.544 | 100.000 | MHz |
| Frequency Stability | 1.544 ~ 100.000 | All Conditions* | -100 | +100 | PPM |
| Temperature Range | 1.544 ~ 100.000 | | | | |
| Operating (TOPR) | | | -10 | +70 | °C |
| Storage (TSTG) | | | -55 | +125 | |
| Supply Voltage (VDD) | 1.544 ~ 100.000 | | +4.5 | +5.5 | V |
| Input Current (IDD) | 1.544 ~ 25.000 | | | 25 | mA |
| | 25.000+ ~ 50.000 | | | 40 | |
| | 50.000+ ~ 80.000 | | | 77 | |
| | 80.000+ ~ 100.000 | | | 82 | |
| Output Symmetry | 1.544 ~ 80.000 | 2.5V | 45 | 55 | % |
| | 80.000+ ~ 100.000 | | 40 | 60 | |
| Rise Time (TR) | 1.544 ~ 100.000 | 0.5V ~ 4.5V | | 5 | nS |
| Fall Time (TF) | | 4.5V ~ 0.5V | | 5 | |
| Output Voltage (VOL) | 1.544 ~ 100.000 | IOL = 16 mA | | 0.5 | V |
| (VOH) | | IOH = -16 mA | 4.5 | | |
| Output Current (IOL) | 1.544 ~ 100.000 | VOH = 0.5 V | | 16 | mA |
| (IOH) | | VOH = 4.5 V | | - 16 | |
| Output Load | 1.544 ~ 100.000 | TTL | | 10 | TTL |
| | 1.544 ~ 80.000 | HCMOS | | 50 | pF |
| | 80.000+ ~ 100.000 | HCMOS | | 30 | pF |
| Start-up Time (TS) | 1.544 ~ 100.000 | | | 10 | mS |

* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration.

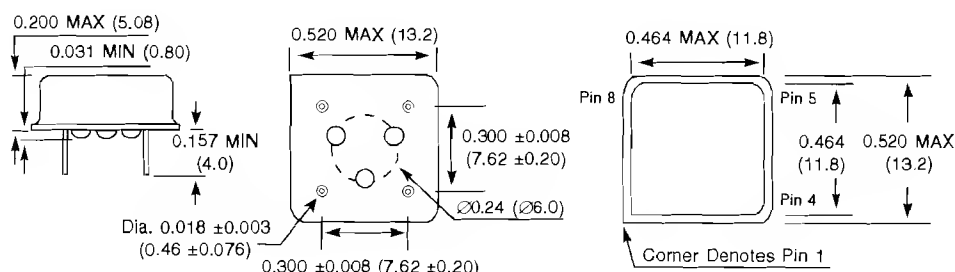
*** An internal pullup resistor from pin 1 to pin 8 allows active output if pin 1 is left open.

See page 35 for mechanical specifications, test circuits, and output waveform.

All specifications subject to change without notice. Rev. 5/20/98

• ENABLE / DISABLE FUNCTION**

| INH (Pin 1) | OUTPUT (Pin 5) |
|-----------------------|----------------|
| OPEN *** | ACTIVE |
| '1' Level VIH ≥ 2.2 V | ACTIVE |
| '0' Level VIL ≤ 0.8 V | High Z |



Pin Connections

#1 E/D** #5 Output
#4 GND (Case) #8 +5Vdc

Inch dimensions shall govern.

All dimensions are in inches & parenthetically in millimeters.